

X-3
JAPANESE MEDICAL MATERIAL

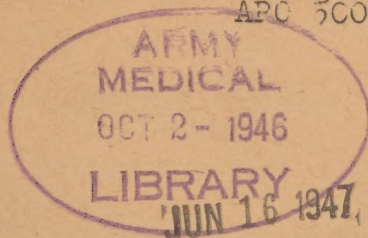
X-RAY, FIELD, PORTABLE

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MEDICAL ANALYSIS SECTION
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APO FCO



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X-Ray, Field, Portable

SOURCE: Tokyo, Japan.

IMPORTANCE: Not previously reported as a complete unit.

Supplement to MTR #80.

DESCRIPTION: This field x-ray is composed of seventeen (17) separate items when packed for moving. There are ten (10) large panniers, 32" x 17" x 19", which are made of heavy wicker, canvas covered, and metal reinforced. Each of these panniers has two metal bands as reinforcement with two metal hinges and two metal hasps. There is a canvas covered rope handle on each end of the panniers. The international Red Cross emblem is on the front of each pannier with the Japanese characters which are interpreted as "Field X-Ray Machine". Many of the panniers have wicker shelves and baskets in them for holding the smaller items.

There are two smaller panniers 16 1/2" x 18" x 17 1/2" which contain lead lined wooden boxes. These two panniers are used for transporting unexposed film.

There are also three small canvas cases, 6" x 9 1/2" x 9", which are used to hold two heads (Japanese X-ray generating machine) and the control box.

Included in the set are a motor and a generator. The motor is a gasoline burning engine, 14" x 16" x 16 1/2", and connects directly with the generator. This motor obtains 3000 revolutions per minute and is a 3 H.P. engine.

The generator is 16" x 14" x 14" and generates 100 volts, 20 amperes.

To make this unit complete, there should also be one tent and one darkroom. However, this unit is used in connection with hospital units where cover is usually available.

COMMENT: Mr. Nakamaki and Mr. Kato, Electrical Engineers and designers of this equipment, were interviewed concerning it.

A total of eight (8) horses is needed to transport this unit complete with tent and darkroom. The unit is used in conjunction with one field hospital of a division.

There is a control box missing from this unit which is connected between the generator and the head. If more than 7 - 8 amperes is desired, the circuit must pass through the control box. This unit can also be used by plugging it into the hospital circuit if it is between 100 - 200 volts, alternating current.

The x-ray tube and transformer are located in the "head". There is a duplicate "head" in each set in case one is damaged. The peak of this machine is 60,000 volts in Roentgen units at 5 milliamps or 50,000 volts at 20 milliamps. The control box is a circuit breaker and voltage regulator.

In box #2 are two fluoroscopic plates with head harnesses for fluoroscopic work. The regular head is used in conjunction with these.

A camera is supposed to be included in box #6. The camera is used to take photographs of wounds and also to reduce the size of x-ray films.

In summary, this set can be said to be both compact and complete for field use. An exact comparison with the US Army equivalent cannot be made by this section. The apparatus will be shipped to US for further study.

An inventory and photographs accompany this report.

Photographs: Fig. 1 - Complete unit, packed.
Fig. 2 - Pannier containing
fluoroscopic accessories.
Fig. 3 - Pannier containing dark
room accessories.
Fig. 4 - Pannier containing lead-
lined film-carrying box.
Fig. 5 - Pannier containing
developing materials.
Fig. 6 - Camera and accessories for
reproducing x-ray films.
Fig. 7 - X-ray apparatus assembled.



Fig. 1 - Complete unit, packed.



Fig. 2 - Pannier containing fluoroscopic accessories.



Fig. 3 Pannier containing dark room accessories.

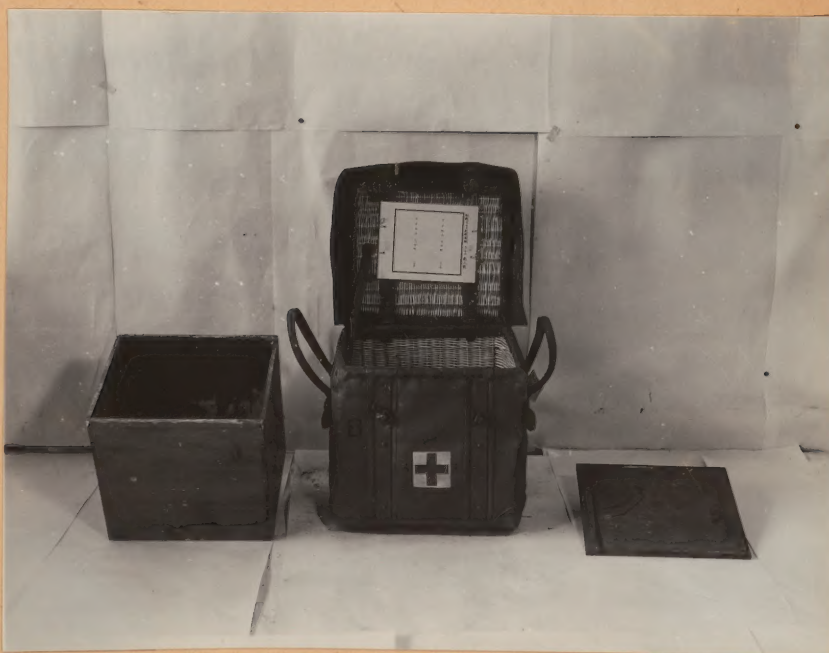


Fig. 4 - Pannier containing lead-lined film-carrying box.



Fig. 5 - Pannier containing developing materials.

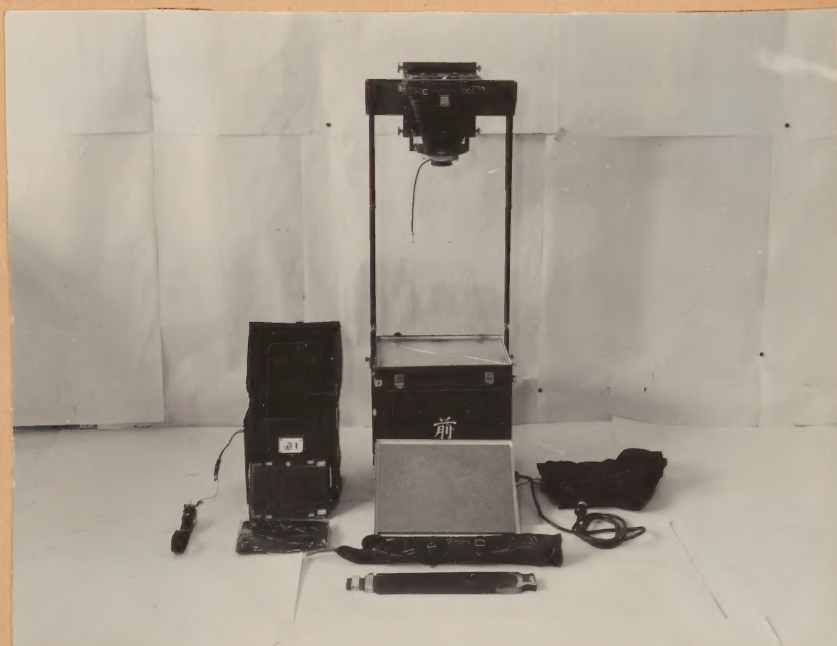


Fig. 6 - Camera and accessories for reproducing x-ray films.



Fig. 7 - X-ray apparatus assembled.

INVENTORY OF
X-RAY, FIELD, PORTABLE

PANNIER NO. 1

1. Automatic shutter	ea	1
2. Second measuring watch	ea	1
3. Tape, measuring	ea	2
4. X-ray generating machine	set	2
5. Electric cord for an electric resource	ea	1
6. Electric cord for x-ray generating machine	ea	1

PANNIER NO. 2

1. Dark slides for film		
a. quarter size	set	4
b. one-eighth size	set	4
2. Ray shutters	ea	2
3. Controller	set	1
4. Fluorescent plate, large size	ea	1
5. Fluorescent plate, small size	ea	1
6. Spectacles, protective	pr	1
7. Gloves, protective	pr	1

PANNIER NO. 3

1. Stand for supporting the x-ray generating machine	ea	1
2. Frame for supporting the x-ray generating machine	ea	1
3. Ground wire and pole	ea	1
4. Table for supporting the x-ray generating machine	ea	1

PANNIER NO. 4

1. Balance, laboratory, small	ea	1
2. Methol	gm	500
3. Hydroquinone	gm	500
4. Sodium sulphite, dehydrated	gm	2000
5. Potassium carbonate	gm	1500
6. Liquid measurers	set	1
7. Chemical bottles	ea	6
8. Funnel	ea	1
9. Dark room lamp	ea	1

10.	Sodium carbonate, dehydrated	gm	1000
11.	Potassium bromide	gm	500
12.	Powder, alum	gm	500
13.	Vats	ea	5
14.	Thermometer	ea	1
15.	Spoon	ea	2
16.	Dropping bottle	ea	1
17.	Filter paper	ea	100

PANNIER NO. 5

1.	Fixing tank	ea	1
2.	Washing tanks	ea	2
3.	Acetic acid, glacial	gm	2000
4.	Sodium thiosulphate	gm	5000
5.	Film hangers	ea	10
6.	Developing tanks	ea	2
7.	Bucket, canvas	ea	2

PANNIER NO. 6

1.	Camera	ea	1
2.	Printing frame	ea	2
3.	Film marks	set	1
4.	Glass for cubic observation	ea	1
5.	Film holder	ea	24
6.	Leather cloth	ea	1
7.	Prop for camera	ea	1
8.	Electric cord	meter	10
9.	Film case	ea	1

PANNIER NO. 7

1.	Film	ea	120
2.	Dry plate	ea	120
3.	X-ray paper	ea	60
4.	Printing paper	ea	120

PANNIER NO. 8

1.	Film	ea	252
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PANNIER NO. 9

1. Flashlight	ea	1
2. Disassembling tools	set	1
3. Mobile oil	gm	3500
4. Distributing board for a dynamo	set	1
5. Spare parts for dynamo	set	1
6. Gauge for revolutions	ea	1
7. Funnel	ea	1
8. Oil can	ea	1

PANNIER NO. 10

1. Sound arrester, for motor	ea	1
2. Electric cord	ea	1
3. Gasoline	liter	18

PANNIER NO. 11

1. Apron, protective	ea	1
2. Rubber cloths, protective	ea	3
3. Solder	gm	1000
4. Soldering accelerator	gm	250
5. Fuse	ea	11
6. Twisted thread, hemp	meter	150
7. Crotched sockets	ea	5
8. Emery paper	sheet	15
9. Electric cord	meter	10
10. Sand bags	ea	6
11. Lamp, for dark room	ea	1
12. Tools	set	1
13. Electric cord, for dark room lamp	meter	20

PANNIER NO. 12

1. Sodium sulphate, dehydrated, btl of 500 gm	ea	4
2. Sodium carbonate, dehydrated, btl of 500 gm	ea	2
3. Sodium thiosulphate, bottle of 500 gm	ea	10
4. Powder, alum	btl	1

DYNAMO, ALTERNATING CURRENT

ELECTRIC MOTOR